

ABSTRACT OF THE DISCLOSURE

A reduction in a size of a multichip module having a plurality of chips (higher-density mounting) and improvements in the reliability and functionality thereof are intended. By alternately repeating stacking in layers and processing of insulating films and conductive films, a microcomputer chip is face-down bonded to an upper portion of a wiring substrate having build-up substrate portions formed with wires with a surface of the microcomputer chip formed with a bump electrode facing downward. Memory chips are bonded onto an upper portion of the microcomputer chip with the respective surfaces thereof formed with bonding pads and the like facing upward. The bonding pads and the like are connected to bonding pads along edges of the wiring substrate with conductive wires. By thus disposing the microcomputer chip having multifunctionality and a larger number of terminals in a lower layer, the size reduction of a device and the like can be achieved.